ARCADIS Design & Consultancy for natural and built assets

Ms. Sheila Desai
Remedial Project Manager
Superfund Division (SR-6J)
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Subject:
Response to Comments, December 2015 Preliminary Design Report, Old American Zinc Plant Site (Site), Fairmont City, Illinois

ENVIRONMENT

Date:
February 3, 2016

Contact:
Charles McCulloch

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Our ref:
HA100254.0000

Dear Ms. Desai:

Please find below the response to comments requested by U.S. Environmental Protection Agency (U.S. EPA) in the January 26, 2016 correspondence. Responses to comments are included in *italic*.

General Comments

1. Provide list of proposed specifications, and a complete list of proposed drawings.

   A list of specifications and drawings will be included in the Draft Final Design.

Specific Comments

1. **Section 1.1, 6th Bullet**: Please provide the following drawings:
2.
   - Individual drawings for each of the impacted off-site properties, including structures, utilities, excavation depths, and restoration.

     As per discussion with Ms. Sheila Desai on 2/2/106, a figure will be included in the Draft Final Design showing the outlines of the properties and areas of the properties that require remediation. A typical (not to scale) drawing showing a typical residential/commercial property excavation will also be included

in the Draft Final Design. Private utilities will be marked during the removal actions, and will be included in subsequent drawings.

- Removal areas and depths within Rose Creek, access points and restoration details.

  The requested information will be provided in a drawing in the Draft Final Design document.

- Restoration details for the proposed and existing ditches.

  The request will be provided in the Draft Final Design document.

- Excavation and restoration details for the outfall(s).

  Areas of ditch excavation will be included in the design drawings in the draft Final Design Document. Preliminary ditch designs were included in the preliminary design submittal design drawing 7. Please explain in detail what outfall(s) this comment was requested for.

  Provide restoration details for consolidation area cap, and other facility areas.

  The request will be provided in the Draft Final Design document.

Please provide the following calculations:

- Volume calculations for all excavations and required import/borrow, including facility area, offsite properties, ditches, outfalls, and drainage ways.

  The request will be provided in the Draft Final Design document.

- Stormwater calculations for existing ditches and Rose Creek.

  It is unclear why this calculation is required. The total runoff is not being altered.

- Soil erosion calculations for consolidation area.

  The request will be provided in the Draft Final Design document.

- Calculations estimating infiltration through the consolidation cap, and justify whether a leachate collection system is needed or not needed.

  Soil erosion calculations and infiltrations calculations are not a specified requirement of the Record of Decision (ROD) or the Administrative Order on Consent (AOC). Geotechnical and agronomic samples were collected and analyzed during the Pre-Design Investigation to evaluate the suitability of onsite soils for use as cover materials. Based on the analyses, onsite soils were determined to be suitable for cover materials.

- Slope stability calculations for critical sections of the consolidation cell.

  The request will be provided in the Draft Final Design document.

3. **Section 4.3.3**: The text implies new ditches will be 5 feet, however, Drawing 7 shoes ditches to be 15 feet wide and the Stormwater calculations are performed for a ditch that was 15 feet wide. Please clarify. Additionally, drawings show a new 15 foot wide ditch which discharges into a 9 foot wide ditch (no calculation provided), and then into Rose Creek (no calculation provided), is this correct?

   The ditches will be 15 feet wide, as indicated on the drawings and as per the calculations. The text will be corrected to reflect this in the Draft Final Design. The drawings correctly show the new 15 foot wide ditch discharging into a 9 foot wide ditch, which discharges into Rose Creek. The 15 foot wide ditches were designed to limit the flow depth in these ditches on the main part of the property. The 9 foot wide ditches are deeper than the 15 foot wide ditches, and should accommodate the flow without issue. This will be verified in the Draft Final Design.

4. **Section 4.3.11**: Heading jumps from 3rd level to 5th level. Instead of generally suggesting ARARs will be met, list each ARAR and specifically detail how the RD will meet it.

   The heading format has been noted.
   The identification of Applicable or Relevant and Appropriate Regulations (ARARs) and how the Remedial Design (RD) will meet it has been discussed in previously submitted documents, including the Feasibility Study (FS) and ROD.

5. **Figure 4**: The base layers should be legible. If not feasible, label Kingshighway, I-55, Old Cahokia Creek and any other relevant points on the map. Recommend changing the color of Kingshighway to a color other than red (same color as alleyways requiring soil removal). The scale of the various layers should be consistent (the background layer has a different scale shown in the lower left hand corner than what is in the legend). Explain what the asterisk after note 2 means.

   These changes will be made in the Draft Final Design.

6. **Appendix A, Drawing 1**: Facility Area Existing Conditions: The word "residential" is misspelled in the stockpile label.

   The misspelling of "residential" will be made in the Draft Final Design.

7. **Appendix A, Drawing 4**: Confirm that borings used actually extend to the bottom of the source material, and show the bottom of the source material, not just the bottom of the boring. Example, SB-17-SW did not extend through the source material, and was terminated in the source material, but data is being used to represent the source material bottom.

   Soil boring data will be verified and corrected as needed in the Draft Final Design.

8. **Appendix A, Drawing 6**: On the left side, extend cap down to meet clay surface (see figure below).

   This change will be corrected on the Draft Final Design.

As indicated above, the requests will be incorporated into the Draft Final Design and will be submitted to the U.S. EPA.

Sincerely,

ARCADIS U.S., Inc.

Joni M. Culpepper, P.G.
Associate Project Manager 1

Charles M. McCulloch, CPG, REM
Principal Geologist

Attachments

Copies:
Michael Haggitt - IEPA
Rachel Grand – CH2M
Gary Uphoff - EMS
Dianna Tickner – Gold Fields Mining
Jennifer Mumper – Gold Fields Mining